REMARKS

Claims 28-32, 37-41, and 47-61 are pending. Claims 33-36 and 42-46 have been canceled. Claims 57-61 have been added.

Amendments to the Specification.

Applicants respectfully request entry of certain amendments to the Specification, discussed in detail below, in order to correct for errors in the German-to-English translation of PCT Application No. WO 01/79128, of which the present patent application is the U.S. National Stage. A copy of WO 01/79128 is submitted herewith as **Attachment A**, with referenced portions thereof highlighted for the Examiner's convenience. Applicants also submit herewith a marked-up copy of a substitute Specification, showing the amendments made thereto, as **Attachment B**, as well as a clean version of the substitute Specification, as **Attachment C**.

Each of the present amendments to the Specification are being made to correct for translation errors, and Applicants respectfully submit that no new matter has been added.

At page 3, line 24, please replace "(ASIM 0 264)" with --(ASTM D 264)--. The foregoing error is apparent from WO 01/79128 at page 5, lines 5-6.

At page 4, line 11 (twice), please replace "stress" with --voltage--. The original German word "Biasspannung" at page 6, lines 2-3 of WO 01/79128 was incorrectly translated to English as "bias stress" rather than "bias voltage". This error was not made elsewhere in the present Specification. For example, referring to Example 5 of WO 01/79128 and the present Specification, it may be seen that the German word "Bias-Spannung" was correctly translated as "bias voltage".

In Examples 2, 7, 14, and 15.2, please replace "CPa with --GPa--. The foregoing error is apparent from WO 01/79128 in Examples 2, 7, 14, and 15.2.

Finally, in Examples 3, 4, 7, 13, 14, 15.1, 15.2, 15.3, 16, and 17, please replace "strength" with --stress--. Here, the original German word "Zugspannung" was incorrectly translated as "tensile strength" rather than "tensile stress". As indicated at page 1049 of Dr.-Ing. Richard Ernst, Dictionary of Engineering and Technology (Vol. 1) (German-English) (submitted herewith as **Attachment D**), the German word "Zugspannung" means "tensile stress". This error was not made elsewhere in the present Specification. For example,

referring to Examples 1, 2, and 18 of WO 01/79128 and the present Specification, the German word "Zugspannung" was correctly translated as "tensile stress".

Priority.

Responsive to the Examiner's indication that there is no hard copy of the foreign priority document in the patent file, Applicants submit herewith as **Attachment E** a copy of the PCT Notification Concerning Submission or Transmittal of Priority Document concerning the present patent application, which is the U.S. National Stage of PCT Application No. WO 01/79128. Accordingly, Applicants submit that a copy of the foreign priority document should be in the present patent application file. If not, Applicants can submit a copy of same to the Examiner upon request.

Claim Objections.

Responsive to the Examiner's objection to the phrase "of the order of" in Claims 28, 32-35, 38, and 39, Applicants have canceled Claims 33-35 and have amended Claims 28, 32, 38, and 39 to remove such phrase. Responsive to the Examiner's objections regarding Claim 37, Applicants have amended Claim 37 to change "if" to "is" and to state that the base body is a flat glass. Responsive to the Examiner's objection regarding Claim 43, Applicants have canceled same. Finally, responsive to the Examiner's objection regarding Claims 51-56, Applicants have amended same to depend from Claim 50.

Specification Objections.

Responsive to the Examiner's objection to the Specification regarding the breadth of the claims, Applicants respectfully request the Examiner to note that former independent Claim 32 has been amended to depend from Claim 28 and to remove several of the limitations therefrom, such as "platinum-catalyzed, addition cross linking polymer". Further, amended independent Claim 28 has been amended to call for "tensile stress", such that the pending claims do not call for *both* "tensile stress" and "compressive stress". Claims 33-36, which included terms objected to by the Examiner such as "epoxy resin", "mixture of polyacrylates and polyepoxy", and "polyurethane", have been canceled.

Applicants submit that the use of the term "silicon resin" in Claim 28 is proper. For example, three particular types of silicon resins, namely, an alkyl phenyl silicon resin, a methylphenyl silicon resin, and a polysiloxane resin are disclosed in Examples 4, 7, and 13, respectively. Applicants submit that use of the term "silicon elastomer" in Claim 32 is also proper. For example, a particular type of silicon elastomer, namely, polydimethyl siloxane, is disclosed in Examples 3 and 7.

Responsive to the Examiner's objection to the Specification regarding the amount of direction provided, the existence of working Examples, and the quantity of experimentation needed, Applicants respectfully submit that Claim 28, and the claims that depend therefrom, are fully supported by the Specification, and in particular working Examples 4, 7, and 13, which provide sufficient detail, including tensile stress measurements, for one of ordinary skill in the art to make and use the invention as claimed.

With respect to the Examiner's objections regarding Example 17, Applicants have amended Claim 32 in the manner discussed above, and have also cancelled Claim 42, which claims had corresponded to Example 17. With respect to the Examiner's objections regarding Example 18, Applicants respectfully request the Examiner to note that Applicants have cancelled Claims 33-36 and 43-46, which had corresponded to Example 18.

Rejection of Claims 28-57 under 35 U.S.C. §112, first paragraph, for lack of Enablement.

Applicants respectfully submit that independent Claim 28, and the claims which depend therefrom, are enabled and supported by the present Specification, including in particular Examples 4, 7, and 13, each of which are working examples which set forth sufficient detail for one of ordinary skill in the art to make and use the invention as claimed without undue experimentation. For example, each of Examples 4, 7, and 13 identify specific glass substrates and resins, and also set forth specific parameters for the centrifugal application of the resins to the glass substrates and subsequent drying. Further, Examples 4, 7, and 13 also set forth the measured tensile stresses of the silicon resin layers which are applied to the glass substrates.

Alkyl phenyl silicone resins, such as that used in Example 4, methylphenyl silicone resins, such as that used in Example

13, are readily available, such as from Wacker-Chemie GmbH ("Wacker") (*see* page 9, Example 7). In particular, the alkyl phenyl silicone resin of Example 4 may be a Silres® resin from Wacker, such as that described in further detail in the Wacker product information submitted herewith as **Attachment F** regarding Silres® Ren 100. The polysiloxane resin of Example 13 may also be a Silres® resin from Wacker, such as that described in further detail in the product information included herewith regarding Silres® 610 resin submitted herewith as **Attachment G**.

Similarly, new independent Claim 61 is enabled and supported by the present Specification, including in particular Examples 1 and 2, which are working examples which setting forth sufficient detail for one of ordinary skill in the art to make and use the invention claimed in independent Claim 61 without undue experimentation. For example, each of Examples 1 and 2 identify specific glass substrates and polyvinyl alcohol solutions, and also set forth specific parameters for the centrifugal application of the solutions to the glass substrates and subsequent drying. Further, Examples 1 and 2 also set forth the measured tensile stresses of the polyvinyl alcohol layers which are applied to the glass substrates.

Rejection of Claims 28, 37, 38, 39, 48, 50, and 53 under 35 U.S.C. §102(b).

The Examiner rejected Claims 28, 37, 38, 39, 48, 50, and 53 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,273,828 to Tracy et al. (hereinafter "Tracy et al. '828"), and further rejected Claim 28 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,789,024 to Levy et al. (hereinafter "Levy et al. '024").

Tracy et al. '828 discloses plasma deposition of an amorphous polymeric hydrogenated silicon-silicon nitride film on the surface of bulk glass to strengthen the glass. The film imparts increased compressive strength to the surface of the glass on which it is applied. For example, the film applied to the surface of the glass should have a compressive strength of at least about 0.7×10^9 dynes/cm^2 and preferably at least about 2.9×10^9 dynes/cm^2. (*See* col. lines 55-60 and Examples 1-11).

Levy et al. '024 discloses composite membranes useful as filters for liquids, solids, and gases, which are made from a substrate, such as porous borosilicate glass, coated with a microporous silicon oxide film by a chemical vapor deposition ("CVD") process. According

to Example 3, the silicone oxide film which is deposited on the substrate should have an average compressive stress of 210 Mpa. (*See* col. 22, lines 58-67).

Amended independent Claim 28 calls for a toughened glass body including a base body of glass and at least one first layer applied thereto, wherein the first layer is a layer of silicon resin, and wherein the layer is under tensile stress from about 100 to 1000 MPa.

New independent Claim 61 calls for a toughened glass body including a base body of glass and at least one first layer applied thereto, wherein the first layer is a layer of polyvinyl alcohol and wherein the layer of polyvinyl alcohol is under tensile stress from about 100 to about 1000 MPa.

Applicants respectfully submit that Claims 28 and 61 are not anticipated by Tracy et al. '828 or Levy et al. '024 because Tracy et al. '828 and Levy et al. '024 each fail to disclose each and every element of Claims 28 and 61. Specifically, Tracy et al. '828 and Levy et al. '024 each fail to disclose a glass body including a base body of glass and at least one first layer applied thereto, the layer under tensile stress of from about 100 to about 1000 MPa, as called for in Claims 28 and 61. By contrast, Tracy et al. '828 and Levy et al. '024 only disclose *compressive strength* values for layers or films which are deposited onto glass substrates.

Applicants respectfully submit that tensile stress is a different property than compressive strength or compressive stress. For example, as set forth in the McGraw-Hill Dictionary of Scientific and Technical Terms, 4th Ed. (1989) (submitted herewith as **Attachment H**), "compressive strength" is defined as "[t]he maximum compressive stress a material can withstand without failure", and "compressive stress" is defined as "[a] stress which causes an elastic body to shorten in the direction of the applied force". By contrast, "tensile strength" is defined as "[t]he maximum stress a material subjected to a stretching load can withstand without tearing", and "tensile stress" is defined as "[s]tress developed by a material bearing a tensile load". Thus, because Tracy et al. '828 and Levy et al. '024 each fail to disclose a glass body including a base body of glass and at least one first layer applied thereto, the layer under tensile stress of from about 100 to about 1000 Mpa, as called for in Claims 28 and 61, Applicants respectfully submit that independent Claims 28 and 61 are not anticipated by Tracy et al. '828 and Levy et al. '024.

Further, because Claims 29-32, 37-41, and 47-60 each depend from Claim 28, Applicant further submit that Claims 29-32, 37-41, and 47-60 are also not anticipated by Tracy et al. '828 or Levy et al. '024.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicants respectfully submit that the application is in condition for allowance and respectfully request allowance thereof.

In the event Applicants have overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby petition therefore and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Should the Examiner have any further questions regarding any of the foregoing, he is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,

Adam F. Cox
Registration No. 46,644

Attorney for Applicants

AFC/mt

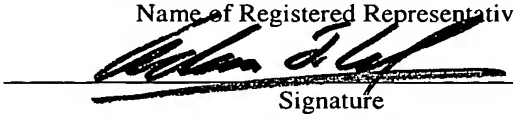
BAKER & DANIELS
111 East Wayne Street, Suite 800
Fort Wayne, IN 46802
Telephone: 260-424-8000
Facsimile: 260-460-1700

Enc. Return Postcard

CERTIFICATION OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: November 24, 2003

ADAM F. COX, REG. NO. 46,644
Name of Registered Representative



Signature

November 24, 2003
Date